

Docket No.: 1359.1052

Serial No. 09/940,522

**IN THE CLAIMS:**

The text of all pending claims, (including withdrawn claims) is set forth below. Cancelled and not entered claims are indicated with claim number and status only. The claims as listed below show added text with underlining and deleted text with ~~strike through~~. The status of each claim is indicated with one of (original), (currently amended), (cancelled), (withdrawn), (new), (previously presented), or (not entered).

Please AMEND 9 and 10 in accordance with the following:

1. (CANCELED)

2. (CANCELED)

3. (PREVIOUSLY PRESENTED) A voice interactive system, comprising:

a voice information input part inputting voice information of a first user from a first user terminal;

a voice recognition part conducting voice recognition with respect to the voice information and analyzing contents of the voice information;

a voice information mediation part controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;

an interaction engine extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and

a voice information output part outputting the synthesized voice, wherein the voice information mediation part monitors at all times an average reaction time, from a response of the interaction engine to a reaction of the first user, and in each of a case where the average reaction time exceeds a first threshold value that is an upper limit of a reaction time in an ordinary interaction and a case where the average reaction time is below a second threshold value that is a lower limit of the reaction time in the ordinary interaction, determines that an interaction between the first user and the interaction engine is not being smoothly conducted and allows a third-party user to participate in the interaction between the first user and the interaction engine, as a helper, from a terminal other than the first user terminal.

4. (CANCELED)

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5. (PREVIOUSLY PRESENTED) A voice interactive system, comprising:

a voice information input part inputting voice information of a first user from a first user terminal;

a voice recognition part conducting voice recognition with respect to the voice information and analyzing contents of the voice information;

a voice information mediation part controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;

an interaction engine extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and

a voice information output part for outputting the synthesized voice, the voice information mediation part:

monitoring at all times whether or not an interaction between the first user and an interaction engine is being smoothly conducted and, in a case of determining that the interaction is not being smoothly conducted, allowing a third-party user to participate in the interaction between the first user and the interaction engine, as a helper, from a terminal other than the first user terminal;

determining a progress of interaction in accordance with an interaction time from a beginning of the interaction between the first user and the interaction engine and the number of accesses from the first user terminal to the interaction engine; and

changing a participation mode of the third-party user successively, in an increasing order of progress of interaction, from (1) involvement, to (2) parallel input, and to (3) switching, and in a case where the participation mode is (1) involvement, permitting the third-party user to be involved in the interaction between the first user and the interaction engine, updating contents of the interaction from the interaction engine to the first user before the content of the interaction is output to the first user, in a case where the participation mode is (2) parallel input, permitting the third-part user to conduct an input with respect to the interaction engine in parallel with the first user, and in a case where the participation mode is (3) switching, permitting the third-part user to directly interact with the first user in place of the interaction engine.

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6. (PREVIOUSLY PRESENTED) A voice interactive system according to claim 3, wherein the interaction engine further includes an interaction history information storage part for recording interaction history on a first user basis, and a helper selection part for selecting the third-party user that is considered to be most familiar with the contents of the interaction from the interaction history, as a helper, and the helper most appropriate for the contents of the voice information is selected.

7. (PREVIOUSLY PRESENTED) A voice interactive system, comprising:

- a voice information input part inputting voice information of a first user from a first user terminal;
- a voice recognition part conducting voice recognition with respect to the voice information and analyzing contents of the voice information;
- a voice information mediation part controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;
- an interaction engine extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and
- a voice information output part outputting the synthesized voice, wherein the voice information mediation part monitors at all times whether or not an interaction between the first user and the interaction engine is being smoothly conducted and, in a case of determining that the user's interaction is not being smoothly conducted, allows a third-party user to participate in the interaction between the user and the interaction engine, as a helper, from a terminal other than the first user terminal;
- a help request notification part operative, in a case where the voice information mediation part determines that the interaction is not being smoothly conducted, to notify a third-party helper user of such fact, and:
  - in a case where the help request notification part notifies the third-party user of the fact that the first user's interaction is not being smoothly conducted, the third-party user is capable of voluntarily interacting with the first user, and
  - in a case where it is detected that only a voice of the third-party helper user continues, for a predetermined period of time or longer, in an interaction between the third-party user and the first user, the interaction engine interacts only with the third-party user.

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8. (PREVIOUSLY PRESENTED) A voice interactive system according to claim 3, further comprising

an interaction history display part displaying the interaction history stored in the interaction history information storage part to a third-party user; and

a helper instruction part for receiving a help instruction from the third-party helper user, wherein:

when the help instruction part receives the help instruction from the third-party helper user, the voice information mediation part enables the interaction between the third-party helper user and the user to be conducted, and

when a degree of help of the third-party helper user exceeds a predetermined threshold value in interaction between the third-party helper user and the first user, the interaction engine interacts only with the third-party helper user.

9. (CURRENTLY AMENDED) A voice interactive method, comprising:

inputting a first user's voice information from a first user terminal;

conducting voice recognition with respect to the voice information, and analyzing contents of the voice information;

controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;

outputting a synthesized voice;

controlling a transmission path of the voice information, comprising:

extracting contents of a response corresponding to the voice information by referring to a knowledge database, and creating a synthesized voice in accordance with the contents of the response, and

~~monitoring at all times whether or not the user's interaction is being smoothly conducted and, in a case where it is determined that the user's interaction is not being smoothly conducted, allowing a third-party user to participate, as a helper, in the interaction between the first user and an interaction engine from another terminal.~~ monitoring at all times an average reaction time, from a response of the interaction engine to a reaction of the first user, and in each of a case where the average reaction time exceeds a first threshold value that is an upper limit of a reaction time in an ordinary interaction and a case where the average reaction time is below a second threshold value that is a lower limit of the reaction time in the ordinary interaction, determining that an interaction between the first user and the interaction engine is not being smoothly conducted and allowing a third-party user to participate in the interaction between the first user and the interaction engine, as a helper, from a terminal other than the first

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user terminal.

10. (CURRENTLY AMENDED) A computer-readable medium storing a program to be read and executed by a computer for processing an input user's voice information, by:

inputting a first user's voice information;

conducting voice recognition with respect to the voice information, and analyzing contents of the voice information;

controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information; and

outputting a synthesized voice, wherein:

in the controlling of a transmission path of the voice information, contents of a response corresponding to the voice information being extracted by referring to a knowledge database, and a synthesized voice being created in accordance with the contents of the response, and

in the controlling of the transmission path of the voice information, ~~monitoring at all times whether or not the user's interaction is being smoothly conducted and, in a case where it is determined that the user's interaction is not being smoothly conducted, allowing a third-party user to participate, as a helper, in the interaction between the first user and an interaction engine from another terminal.~~ monitoring at all times an average reaction time, from a response of the interaction engine to a reaction of the first user, and in each of a case where the average reaction time exceeds a first threshold value that is an upper limit of a reaction time in an ordinary interaction and a case where the average reaction time is below a second threshold value that is a lower limit of the reaction time in the ordinary interaction, determining that an interaction between the first user and the interaction engine is not being smoothly conducted and allowing a third-party user to participate in the interaction between the first user and the interaction engine, as a helper, from a terminal other than the first user terminal.

11. (PREVIOUSLY PRESENTED) A voice interactive system according to claim 5, wherein the interaction engine further includes an interaction history information storage part for recording interaction history on a first user basis, and a helper selection part for selecting the third-party user that is considered to be most familiar with the contents of the interaction from the interaction history, and most appropriate for the contents of the voice information.

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12. (PREVIOUSLY PRESENTED) A voice interactive system according to claim 7, wherein the interaction engine further includes an interaction history information storage part for recording interaction history on a first user basis, and a helper selection part for selecting the third-party user that is considered to be most familiar with the contents of the interaction from the interaction history, and most appropriate for the contents of the voice information.

13. (PREVIOUSLY PRESENTED) A voice interactive system according to claim 5, further comprising:

an interaction history display part displaying the interaction history stored in the interaction history information storage part to a third-party user; and  
a helper instruction part for receiving a help instruction from the third-party helper user, wherein:

when the help instruction part receives the help instruction from the third-party helper user, the voice information mediation part enables the interaction between the third-party helper user and the user to be conducted, and

when a degree of help of the third-party helper user exceeds a predetermined threshold value in interaction between the third-party helper user and the first user, the interaction engine interacts only with the third-party helper user.

14. (ORIGINAL) A voice interactive system according to claim 7, further comprising an interaction history display part displaying the interaction history stored in the interaction history information storage part to a third-party user; and  
a helper instruction part for receiving a help instruction from the third-party helper user, wherein:

when the help instruction part receives the help instruction from the third-party helper user, the voice information mediation part enables the interaction between the third-party helper user and the user to be conducted, and

when a degree of help of the third-party helper user exceeds a predetermined threshold value in interaction between the third-party helper user and the first user, the interaction engine interacts only with the third-party helper user.

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15. (CURRENTLY AMENDED) A voice interactive method, comprising:

- inputting voice information of a first user from a first user terminal;
- conducting voice recognition with respect to the voice information and analyzing contents of the voice information;
- controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;
- extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and
- outputting the synthesized voice, the voice information mediation part:
  - monitoring at all times whether or not an interaction between the first user and an interaction engine is being smoothly conducted and, in a case of determining that the interaction is not being smoothly conducted, allowing a third-party user to participate in the interaction between the first user and the interaction engine, as a helper, from a terminal other than the first user terminal ;
  - determining a progress of interaction in accordance with an interaction time from a beginning of the interaction between the first user and the interaction engine and the number of accesses from the first user terminal to the interaction engine; and
  - changing a participation mode of the third-party user successively, in an increasing order of progress of interaction, from (1) involvement, to (2) parallel input, and to (3) switching, and in a case where the participation mode is (1) involvement, permitting the third-party user to be involved in the interaction between the first user and the interaction engine, updating contents of the interaction from the interaction engine to the first user before the content of the interaction is output to the first user, in a case where the participation mode is (2) parallel input, permitting the third-part user to conduct an input with respect to the interaction engine in parallel with the first user, and in a case where the participation mode is (3) switching, permitting the third-part user to directly interact with the first user in place of the interaction engine.

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16. (CURRENTLY AMENDED) A computer-readable medium storing a program to be read and executed by a computer for processing an input user's voice information, by:

- inputting voice information of a first user from a first user terminal;
- conducting voice recognition with respect to the voice information and analyzing contents of the voice information;
- controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;
- extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and
- outputting the synthesized voice, the voice information mediation part:
  - monitoring at all times whether or not an interaction between the first user and an interaction engine is being smoothly conducted and, in a case of determining that the interaction is not being smoothly conducted, allowing a third-party user to participate in the interaction between the first user and the interaction engine, as a helper, from a terminal other than the first user terminal ;
  - determining a progress of interaction in accordance with an interaction time from a beginning of the interaction between the first user and the interaction engine and the number of accesses from the first user terminal to the interaction engine; and
  - changing a participation mode of the third-party user successively, in an increasing order of progress of interaction, from (1) involvement, to (2) parallel input, and to (3) switching, and in a case where the participation mode is (1) involvement, permitting the third-party user to be involved in the interaction between the first user and the interaction engine, updating contents of the interaction from the interaction engine to the first user before the content of the interaction is output to the first user, in a case where the participation mode is (2) parallel input, permitting the third-part user to conduct an input with respect to the interaction engine in parallel with the first user, and in a case where the participation mode is (3) switching, permitting the third-part user to directly interact with the first user in place of the interaction engine.

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17. (PREVIOUSLY PRESENTED) A voice interactive method, comprising:

- inputting voice information of a first user from a first user terminal;
- conducting voice recognition with respect to the voice information and analyzing contents of the voice information;
- controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;
- extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and
- outputting the synthesized voice, while monitoring at all times whether or not an interaction between the first user and the interaction engine is being smoothly conducted and, in a case of determining that the user's interaction is not being smoothly conducted, allowing a third-party user to participate in the interaction between the user and the interaction engine, as a helper, from a terminal other than the first user terminal, and:
  - in a case where the interaction is not being smoothly conducted, notifying a third-party helper user of such fact,
  - in a case where the third-party user is notified of the fact that the first user's interaction is not being smoothly conducted, the third-party user is capable of voluntarily interacting with the first user, and
  - in a case where it is detected that only a voice of the third-party helper user continues, for a predetermined period of time or longer, in an interaction between the third-party user and the first user, controlling the interaction engine to interact only with the third-party user.

18. (PREVIOUSLY PRESENTED) A computer-readable medium storing a program to be read and executed by a computer for processing an input user's voice information, by:

- inputting voice information of a first user from a first user terminal;
- conducting voice recognition with respect to the voice information and analyzing contents of the voice information;
- controlling a transmission path of the voice information in accordance with the analyzed contents of the voice information;
- extracting contents of a response corresponding to the voice information by referring to a knowledge database and creating a synthesized voice in accordance with the extracted contents of the response; and
- outputting the synthesized voice, while monitoring at all times whether or not an

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interaction between the first user and the interaction engine is being smoothly conducted and, in a case of determining that the user's interaction is not being smoothly conducted, allowing a third-party user to participate in the interaction between the user and the interaction engine, as a helper, from a terminal other than the first user terminal, and:

in a case where the interaction is not being smoothly conducted, notifying a third-party helper user of such fact,

in a case where the third-party user is notified of the fact that the first user's interaction is not being smoothly conducted, the third-party user is capable of voluntarily interacting with the first user, and

in a case where it is detected that only a voice of the third-party helper user continues, for a predetermined period of time or longer, in an interaction between the third-party user and the first user, controlling the interaction engine to interact only with the third-party user.